OIB - C-130H Hercules #439 04/10/15 Science Report

Aircraft:
C-130H Hercules #439 (See full schedule)
Date:
Friday, April 10, 2015
Mission:
OIB
Mission Location:
Kangerlussuaq, Greenland
Mission Summary:

Mission: Southeast Glaciers 01 (priority: baseline)

This mission is a near-repeat of the 2012/2013/2014 Southeast Glaciers mission. Its primary purpose is to continue dh/dt monitoring of 10 glaciers in the southeast which have been flown since 2008, and two additional glaciers in the south near the Pursortoq peninsula first flown in 2012. We also occupy an ICESat line between the southernmost glacier and Kangerlussuaq, and an east-west master grid line between the northernmost glacier and Kangerlussuaq. We overfly four PROMICE sites near Kangerlussuaq. For 2015 we added new lines on the Ikertivaq-N and Ikertivaq-NN channels of Ikertivaq Glacier, since the original line was not optimally placed. The original line is nevertheless retained here for dh/dt continuity purposes.

We saw considerable improvement in the weather across southern Greenland, and we had suitable weather to fly many missions today, including several baseline-priority missions. We selected this one because the southeast Greenland coast has the worst average weather anywhere in Greenland. Occasionally offshore winds clear the clouds from the area, but these winds also create turbulence in the deep glacier valleys, sometimes severe turbulence. Today was forecast to be a nearly ideal "middle ground" day, which boasted offshore winds in the southeast, but these winds were light enough so as not to create severe turbulence. We did experience turbulence throughout the several hours we spent among the glacier valleys today, but it was mild, with occasional moderate, turbulence. The turbulence did not hinder our operations, and we enjoyed clear skies, with the exception of a portion of the western flank of the ice sheet near Kangerlussuaq.

All sensors operated normally today, with no major problems. However we did continue to see some minor radio-frequency interference with ATM3 (wide scanner), of a character consistent with HF radio interference. We saw similar inteference with the MCoRDS sensor today. We tried many different experiments today to isolate the source of the inteference, without success. We do not expect major degradation of our data from this, but we continue to search for a solution.

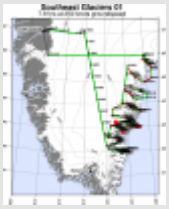
We flew a ramp pass, for instrument calibration purposes, at 1500' AGL.

Data volumes:
ATM: 24 Gb
CAMBOT: 88 Gb
DMS: 141 Gb
Ku-Band Radar: 181 Gb
MCoRDS: 2.1 Tb
Narrow Swath ATM: 31 Gb
NSERC Onboard Data: TBD
Snow Radar: 181 Gb

total data collection time: 6.9 hrs

Images:

Map of Southeast Glaciers 01



Read more

Small glacier with moraines in southeast Greenland

Read more

Calving front of Ikertivaq Glacier

Read more

Submitted by:
John Sonntag on 04/10/15
Related Flight Report:

C-130H Hercules #439 04/10/15

Flight Number:
Southeast Glaciers 01
Payload Configuration:
OIB
Nav Data Collected:
No
Total Flight Time:
8 hours
Submitted by:
Luci Crittenden on 04/10/15
Flight Segments:

From:	BGSF	**To:**	BGSF
Start:	04/10/15 10:15 Z	**Finish:**	04/10/15 18:15 Z
Flight Time:	8 hours		
Log Number:	151002	**PI:**	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Flight Hour Summary:

	151002
Flight Hours Approved in SOFRS	334.4
Total Used	297.6
Total Remaining	36.8

151002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
03/12/15	ATF	Check	1.5	1.5	332.9
03/13/15	PTF - GPS	Check	2	3.5	330.9
03/13/15	PTF - Radar #1	Check	0.8	4.3	330.1
03/13/15 - 03/14/15	PTF - Radar #2	Check	4.5	8.8	325.6

03/16/15	PTF - Radar #3	Check	2.4	11.2	323.2
03/17/15	Transit	Transit	7.8	19	315.4
03/19/15	Nansen Gap	Science	7.4	26.4	308
03/24/15	Sea Ice - Zigzag East	Science	8.2	34.6	299.8
03/25/15	Sea Ice North Pole Transect ? Thule	Science	8.2	42.8	291.6
03/26/15	Sea Ice - Laxon Line	Science	9.2	52	282.4
03/27/15 - 03/28/15	Sea Ice - East Beaufort Sea	Science	8.2	60.2	274.2
03/29/15 - 03/30/15	Sea Ice - North Beaufort Loop	Science	8.9	69.1	265.3
03/30/15 - 03/31/15	Sea Ice - SIZRS Zigzag	Science	8.1	77.2	257.2
04/01/15	Sea Ice - South Basin Transect	Science	8.8	86	248.4
04/03/15	Sea Ice - South Canada Basin	Science	7.4	93.4	241
04/06/15	OIB Transit from BGTL-BGSF	Transit	3.3	96.7	237.7
04/08/15	Helheim-Kangerdlussuag	Science	8	104.7	229.7
04/09/15	K-EGIG Summit	Science	8.3	113	221.4
04/10/15	Southeast Glaciers 01	Science	8	121	213.4
04/11/15	East Glaciers 01	Science	8	129	205.4
04/13/15	Southeast Coastal	Science	7.7	136.7	197.7
04/14/15	Helheim-Kangerdlussuaq Gap B	Science	7.9	144.6	189.8
04/17/15	Umanaq B	Science	7.5	152.1	182.3
04/18/15	Southwest Coast A	Science	8.1	160.2	174.2
04/20/15	Penny 01	Science	6.3	166.5	167.9
04/21/15	Thomas-Jakobshaven 01	Science	8.7	175.2	159.2
04/22/15	Southeast Flank 01	Science	7.6	182.8	151.6
04/23/15	Jakobshavn-Eqip-Store	Science	9.2	192	142.4
04/24/15	Geikie 02	Science	8.3	200.3	134.1
04/25/15	Jakobshaven 02/ Mop Up	Science	6.9	207.2	127.2
04/27/15	Southwest Coastal B	Science	8	215.2	119.2
04/28/15	Southeast Glaciers 02	Science	7	222.2	112.2
04/29/15	TRANSIT BGSF-BGTL	Transit	2.5	224.7	109.7
04/30/15	ATM Laser Repair Checkout	Science	2.3	227	107.4
05/01/15	NW Coastal A	Science	7.2	234.2	100.2
05/05/15	IceSat-2 North / CryoSat-2 SARIn	Science	8.2	242.4	92
05/06/15	North Glaciers 01	Science	8.2	250.6	83.8
05/07/15	Devon-Barnes 01	Science	7.8	258.4	76
05/08/15	Zigzag West	Science	7.2	265.6	68.8
05/11/15	Northwest Glaciers 01	Science	7.8	273.4	61
05/12/15	North-Central Gap 02	Science	8.1	281.5	52.9
05/15/15	North-Central Gap 01	Science	7.3	288.8	45.6
05/21/15	Transit - Thule to Bangor, ME	Transit	6.5	295.3	39.1
05/22/15	Transit - Bangor, ME to WFF	Transit	2.3	297.6	36.8

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Page Last Updated: April 22, 2017

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